



PATENT  
Attorney Docket No. 944-001.070-2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In Re Application of:

**Jussi PIISPANEN** : Confirmation No.: **9454**  
Serial No: **10/781,325** : Examiner: **Kenny S. LIN**  
Filed: **February 17, 2004** : Group Art Unit: **2478**

For: **METHOD AND APPARATUS FOR SYNCHRONIZING HOW DATA IS STORED  
IN DIFFERENT DATA STORES**

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**APPEAL BRIEF**

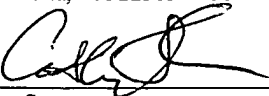
Sir:

This Appeal Brief is in furtherance of the Notice of Appeal filed August 12, 2011. The Notice of Appeal was filed along with a Pre-Appeal Brief Request for Review in response to the final Office Action of April 6, 2011. This Appeal Brief is in response to the Notice of Panel Decision dated September 22, 2011.

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**I. REAL PARTY IN INTEREST (37 C.F.R. § 41.37(c)(1)(i))**

The real party in interest in this appeal is Nokia Corporation, a corporation organized under the laws of Finland.

**II. RELATED APPEALS AND INTERFERENCES (37 C.F.R. § 41.37(c)(1)(ii))**

There are no related appeals or interferences.

**III. STATUS OF CLAIMS (37 C.F.R. § 41.37(c)(1)(iii))**

Claims 31-66 are pending in the application, and claims 1-30 have been cancelled. Claims 31-66 are rejected in the final Office Action of April 6, 2011, and the rejection of claims 31-66 is being appealed.

**IV. STATUS OF AMENDMENTS (37 C.F.R. § 41.37(c)(1)(iv))**

No after final amendments were submitted, and therefore all amendments filed have been entered.

**V. SUMMARY OF CLAIMED SUBJECT MATTER (37 C.F.R. § 41.37(c)(1)(v))**

Independent claim 31 is directed to a method that includes establishing a transport connection, between a first synchronization agent associated with a first data store in a first device and a second synchronization agent associated with a second data store in a second device. *See* specification page 14, lines 28-30; page 16, lines 26-32; page 29, lines 29-31. The method further includes preparing a message including a command for synchronizing the second data store with respect to a change in the directory structure of the first data store, and the command includes at least one data identification element, embedded in the command, identifying a folder associated with at least one modification in the directory structure of the first data store. *See* specification page 15, lines 16-21; page 16, lines 16-18. The method of claim 31 also includes communicating the message to the second synchronization agent via the established transport connection. *See* specification page 16, lines 26-27; page 17, lines 1-3. In the method of claim 31, the at least one data identification element, embedded in the command, is contained

in at least one non-data element of the message. *See* specification page 29, lines 20-27; page 30, lines 5-15.

Independent claim 38 is directed to a method that includes establishing a transport connection between a first synchronization agent associated with a first data store and a second synchronization agent associated with a second data store. *See* specification page 14, lines 28-30; page 16, lines 26-32; page 29, lines 29-31. The method further includes receiving a synchronization message, at the second synchronization agent via the transport connection, comprising a command for synchronizing the second data store with respect to a change in a directory structure of the first data store, the command comprises at least one data identification element, embedded in the command, identifying a folder associated with at least one modification in the directory structure of the first data store. *See* specification page 15, lines 16-21; page 16, lines 16-18. The method of claim 38 also includes making changes to the directory structure of the second data store based on the information conveyed by the command included in the message and the at least one data identification element embedded in the command. *See* specification page 30, lines 16-26. In the method of claim 38, the at least one data identification element, embedded in the command, is contained in a non-data element of the message. *See* specification page 29, lines 20-27; page 30, lines 5-15.

Independent claim 46 is directed to a device that includes a data store configured to store data as data items in folders, the folders defining a directory structure, and a synchronization agent configured to synchronize the data store with another data store of another device. *See* specification page 14, lines 28-30. The synchronization agent of the device of claim 46 is further configured to cause the device to establish a transport connection between the synchronization agent and another synchronization agent, of the other device, associated with the other data store. *See* specification page 16, lines 26-32; page 29, lines 29-31. The synchronization agent of the device of claim 46 is also configured to cause the device to receive a synchronization message, via the transport connection, comprising a command for synchronizing the data store with respect to a change in the directory structure of the another data store, the command comprises at least one data identification element, embedded in the command, identifying a folder associated with at least one modification in the directory structure of the other data store. *See* specification page 15, lines 16-21; page 16, lines 16-18. The synchronization agent of the device of claim 46

is also configured to make changes to the directory structure of the data store based at least in part on the information conveyed by the command included in the message and the at least one data identification element embedded in the command. *See* specification page 30, lines 16-26. The at least one data identification element, embedded in the command, is contained in a non-data element of the message. *See* specification page 29, lines 20-27; page 30, lines 5-15.

Independent claim 57 is directed to a device that includes a data store configured to store data as data items in folders, the folders defining a directory structure and a synchronization agent configured to synchronize the data store with another data store of another device. *See* specification page 14, lines 28-30. The synchronization agent of the device of claim 57 is further configured to cause the device to establish a transport connection between the synchronization agent and another synchronization agent, of the other device, associated with the other data store. *See* specification page 16, lines 26-32; page 29, lines 29-31. The synchronization agent of the device of claim 57 is also configured to cause the device to prepare a synchronization message comprising a command for synchronizing the another data store with respect to a change in the directory structure of the data store, the command comprises at least one data identification element, embedded in the command, identifying a folder associated with at least one modification in the directory structure of the data store. *See* specification page 15, lines 16-21; page 16, lines 16-18. The synchronization agent is further configured to communicate the synchronization message to the another synchronization agent via the transport connection. *See* specification page 16, lines 26-27; page 17, lines 1-3. The at least one data identification element, embedded in the command, is contained in a non-data element of the message. *See* specification page 29, lines 20-27; page 30, lines 5-15.

## **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL (37 C.F.R. § 41.37(c)(1)(vi))**

Claims 31-35, 37-39, 41-43, 45-50, 52-54 and 56-66 are rejected under 35 U.S.C. § 103(a) as unpatentable over Applicant Admitted Prior Art (AAPA) disclosed on pages 1-10 of the instant application in view of Rabbers et al. (U.S. Appl. Publ. No. 2007/0016695).

Claims 36, 40, 44, 51, 55 and 65 are rejected under 35 U.S.C. § 103(a) as unpatentable over the AAPA in view of Rabbers, and in further view of Edwards (U.S. Patent No. 7,395,281).

**VII. ARGUMENT (37 C.F.R. § 41.37(c)(1)(vii))**

**Rejection Under 35 U.S.C. § 103(a) in view of AAPA and U.S. Appl. Publ. No. 2007/0016695**

**Claim 31**

Appellant respectfully submits that claim 31 is not disclosed or suggested by the cited references, because the cited references fail to disclose or suggest all of the limitations recited in claim 31. The cited references, alone or in combination, at least fail to disclose or suggest that the command message is for synchronizing the second data store with respect to a change in the directory structure of the first data store and a message including a command for synchronizing the second data store with respect to a change in the directory structure of the first data store, the command including at least one data identification element, embedded in the command, identifying a folder associated with at least one modification in the directory structure of the first data store. Accordingly, appellant respectfully submits that the cited references at least fail to disclose or suggest these limitations recited in claim 31.

In contrast to claim 31, page 6, lines 14-24 of the AAPA clearly indicates that the commands relate to operations associated with data items, and do not disclose or suggest synchronization with respect to a change in directory structure. For example, SyncML defines request commands and response commands, and the request commands include add, which is a command that allows the originator to ask that one or more data units be added, copy, which is a command allowing the originator to ask that one or more data units accessible to the recipient be copied, and delete, which is a command allowing the originator to ask that one or more data units accessible to the recipient be deleted or archived. See AAPA page 6, lines 25-33. Therefore, the commands discussed in this section of the AAPA do not relate to changes in directory structure, as recited in claim 31, but instead relate to data units. Furthermore, page 1, lines 22-31 and page 2, lines 1-29 of the AAPA indicates the need for synchronizing data stores when changes are made and explains that the synchronization process makes the two data stores correspond to each other but does not teach how to synchronize changes in the directory structure. In particular, the AAPA specifically states that “with SyncML, data items, but not yet data structure, can be synchronized on different devices connected via one or more interconnecting networks.” See AAPA page 2, lines 21-23. Therefore, the AAPA does not provide a solution for synchronizing

directory structure, but instead merely identifies a problem. In addition, page 7, lines 8-18 of the AAPA only describes different XML element types of XML documents in SyncML protocol, but does not teach how to synchronize two data stores with respect to changes in directory structure, as recited in claim 31. Therefore, for at least the reasons discussed above, claim 31 is not disclosed or suggested by the AAPA.

In addition, the Office acknowledges on page 3 of the final Office Action of April 6, 2011 that the AAPA does not disclose a message comprising a command with respect to change in the directory structure of the first data store or identifying a folder associated with at least one modification in the directory structure of the first data store, and relies upon Rabbers for this teaching. However, appellant respectfully submits that Rabbers fails to make up for the deficiencies in the teachings of the AAPA identified by the Office. Rabbers states that the synchronization client is configured to determine whether to download to the handheld device a full extract of the main database or to download a delta extract, i.e. only the data in the main database that has changed since the last synchronization operation. See Rabbers paragraph [0006]. In Rabbers, performing the delta extract download when appropriate helps to reduce the time needed to complete a synchronization operation. At the server side in Rabbers, the computer system (204) can compare the current extract with the previous extract and download only the database data that has changed, i.e. the delta extract, and the previous extract can then be deleted. See Rabbers paragraph [0052]. In certain circumstances, the computer system (204) may ignore the previous extract, and instead download the current extract, for example, if the structure of the main database (112) changed since the previous extract, then the computer system (204) would perform a full extract rather than attempt to perform a delta extract. See Rabbers paragraph [0056]. Therefore, Rabbers clearly states that in case of a change in the structure of a main database, a full extract, i.e. a full synchronization where all items are exchanged, is performed. In contrast to claim 31, Rabbers does not disclose or suggest a change in the directory structure, as recited in claim 31.

However, even if a change in the structure discussed in Rabbers can be interpreted as a change in the directory structure, which appellant does not admit, Rabbers proposes a full synchronization in this situation and not a message that includes a command for synchronizing the second data store with respect to a change in the directory structure of the first data store,

where the command includes at least one data identification element embedded in the command identifying a folder associated with at least one modification in the directory structure of the first data store, as recited in claim 31. Sending a message with a command that includes a data identifier identifying a folder is distinct and technically more efficient than performing a full synchronization each time there is a change in the structure.

Furthermore, the extraction ID discussed in Rabbers is distinct from the at least one data identification element embedded in the command identifying a folder, as recited in claim 31. Rabbers states that the extraction ID identifies the version of the database extract. See Rabbers paragraph [0134]. The version of the extract is clearly different from a folder in the database. In Rabbers, the server (116) receives a request from sync client (401) for either a full extract or a delta extract, and the sync client (401) may base the request on whether an extraction ID downloaded from the server (116) matches an extraction ID locally stored by the sync client (401). See Rabbers paragraph [0150]. Therefore, in Rabbers the extraction ID is downloaded from the server, and based on the downloaded extraction ID the client will decide whether to request a full request or a delta request. Accordingly, the extraction ID is downloaded before sending the request, which is in contract to claim 31, in which the identifier is sent in the message requesting directory structure synchronization.

Therefore, even if the AAPA is combined with the teachings of Rabbers, which appellant does not admit is possible, the combination asserted by the Office would at most lead to a full synchronization each time there is a change in the structure of the main database, which is distinct from the limitations recited in claim 31.

#### Claims 38, 46 and 57

Independent claims 38, 46 and 57 contain limitations similar to those recited in claim 31. Therefore, for at least the reasons discussed above with respect to claim 31, claims 38, 46 and 57 are not disclosed or suggested by the cited references.

Claims 32-35, 37, 39, 41-43, 45, 47-50, 52-54, 56, 58-64 and 66

Claims 32-35, 37, 39, 41-43, 45, 47-50, 52-54, 56, 58-64 and 66 all ultimately depend from an independent claim, and therefore are not disclosed or suggested by the cited references at least in view of their dependencies.

Rejection Under 35 U.S.C. § 103(a) in view of AAPA and U.S. Appl. Publ. No. 2007/0016695 and U.S. Patent No. 7,395,281

Claims 36, 40, 44, 51, 55 and 65


Claims 36, 40, 44, 51, 55 and 65 all ultimately depend from an independent claim, and therefore are not disclosed or suggested by the cited references at least in view of their dependencies.

Conclusion

For the reasons discussed above, appellant respectfully submits that the rejections of the Office Action have been shown to be inapplicable, and respectfully requests that the Board reverses the rejections to pending claims 31-66. If any additional fee is required for submission of this Appeal Brief, the Commissioner is hereby authorized to charge Deposit Account No. 23-0442.

Respectfully submitted,

Date: 6 February 2012

  
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## CLAIMS APPENDIX

*The claims involved in the appeal are as follows:*

31. A method, comprising:

establishing a transport connection, between a first synchronization agent associated with a first data store in a first device and a second synchronization agent associated with a second data store in a second device;

preparing a message comprising a command for synchronizing said second data store with respect to a change in the directory structure of said first data store, said command comprising at least one data identification element, embedded in said command, identifying a folder associated with at least one modification in the directory structure of the first data store; and

communicating said message to said second synchronization agent via the established transport connection,

wherein the at least one data identification element, embedded in said command, is contained in at least one non-data element of the message.

32. A method according to claim 31, wherein the command and the at least one data identification element comprise information about said at least one modification associated with said folder.

33. A method according to claim 31, wherein the at least one data identification element, embedded in said command or operational element, comprises at least one of a target element and a source element.
34. A method according to any one of claims 31, wherein the message is a syncML message and said command is a syncML protocol command element.
35. A method according to claim 34, wherein the data identification element comprises a LocURI element.
36. A method according to claim 31, wherein said command relates to a folder manipulation operation comprising one or more of renaming a folder, creating a new folder, moving a folder and moving a data item from one folder to another folder.
37. A method according to claim 31, wherein the at least one data identification element, embedded in said command, comprises an identification and a path of said folder.
38. A method comprising:  
establishing a transport connection between a first synchronization agent associated with a first data store and a second synchronization agent associated with a second data store;  
receiving a synchronization message, at said second synchronization agent via said transport connection, comprising a command for synchronizing said second data store with respect to a change in a directory structure of said first data store, said command comprises at

least one data identification element, embedded in said command, identifying a folder associated with at least one modification in the directory structure of the first data store; and

making changes to the directory structure of the second data store based on the information conveyed by said command included in the message and the at least one data identification element embedded in said command,

wherein the at least one data identification element, embedded in said command, is contained in a non-data element of the message.

39. A method according to claim 38, wherein the command and the at least one data identification element comprise information about said at least one modification associated with said folder and wherein the message further comprises at least one data element comprising information about a change in data items in the first data store.

40. A method according to claim 38, further comprises:

extracting, by said synchronization agent, information about said change in the directory structure from the command and the at least one data identification element and providing the information to either a synchronization engine or to an application entity.

41. A method according to claim 38, wherein the at least one data identification element, embedded in said command, comprises at least one of a target element and a source element.

42. A method according to claim 38, wherein the message is a syncML message and said command is a syncML protocol command element.

43. A method according to claim 42, wherein the data identification element comprises a LocURI element.

44. A method according to claim 38, wherein said command relates to a folder manipulation operation comprising one or more of renaming a folder, creating a new folder, moving a folder and moving a data item from one folder to another folder.

45. A method according to claim 38, wherein the at least one data identification element, embedded in said command, comprises an identification and a path of said folder.

46. A device, comprising:

a data store configured to store data as data items in folders, the folders defining a directory structure, and

a synchronization agent configured to synchronize said data store with another data store of another device;

wherein the synchronization agent being further configured to cause the device to perform at least the following:

establish a transport connection between said synchronization agent and another synchronization agent, of said another device, associated with said another data store;

receive a synchronization message, via said transport connection, comprising a command for synchronizing said data store with respect to a change in the directory structure of said another data store, said command comprises at least one data identification element, embedded

in said command, identifying a folder associated with at least one modification in the directory structure of said another data store; and

make changes to the directory structure of said data store based at least in part on the information conveyed by said command included in the message and the at least one data identification element embedded in said command,

wherein the at least one data identification element, embedded in said command, is contained in a non-data element of the message.

47. A device according to claim 46, wherein the command and the at least one data identification element comprise information about said at least one modification associated with said folder.

48. A device according to claim 47, wherein the message further comprises at least one data element comprising information about a change in data items in said another data store.

49. A device according to claim 46, wherein the device comprises one of a wireless communication terminal and a wireline communication terminal.

50. A device according to claim 46, wherein the device is operative as a server in a client server model and comprises a sync engine configured to resolve conflicts posed by the message.

51. A device according to claim 46, wherein the synchronization agent being further configured to:

extract information about said change in the directory structure from the command and the at least one data identification element and providing the information to either to a synchronization engine or to an application entity.

52. A device according to claim 46, wherein the at least one data identification element, embedded in said command, comprises at least one of a target element and a source element.

53. A device according to claim 46, wherein the message is a syncML message and said command is a syncML protocol command element.

54. A device according to claim 46, wherein the data identification element comprises a LocURI element.

55. A device according to claim 46, wherein said command relates to a folder manipulation operation comprising one or more of renaming a folder, creating a new folder, moving a folder and moving a data item from one folder to another folder.

56. A device according to claim 46, wherein the at least one data identification element, embedded in said command, comprises an identification and a path of said folder.

57. A device, comprising:

a data store configured to store data as data items in folders, said folders defining a directory structure; and

a synchronization agent configured to synchronize said data store with another data store of another device;

wherein the synchronization being further configured to cause the device to perform at least the following:

establish a transport connection between said synchronization agent and another synchronization agent, of said another device, associated with said another data store;

prepare a synchronization message comprising a command for synchronizing said another data store with respect to a change in the directory structure of said data store, said command comprises at least one data identification element, embedded in said command, identifying a folder associated with at least one modification in the directory structure of said data store; and

communicate said synchronization message to said another synchronization agent via said transport connection,

wherein the at least one data identification element, embedded in said command, is contained in a non-data element of the message.

58. A device according to claim 57, wherein the command and the at least one data identification element comprise information about said at least one modification associated with said folder.

59. A device according to claim 58, wherein the message further comprises at least one data element comprising information about a change in data items in said data store.

60. A device according to claim 57, wherein the device comprises one of a wireless communication terminal and a wireline communication terminal.

61. A device according to claim 57, wherein the device is operative as a client.

62. A device according to claim 57, wherein the at least one data identification element, embedded in said command, comprises at least one of a target element and a source element.

63. A device according to claim 57, wherein the message is a syncML message and said command is a syncML protocol command element.

64. A device according to claim 57, wherein the data identification element comprises a LocURI element.

65. A device according to claim 57, wherein said command relates to a folder manipulation operation comprising one or more of renaming a folder, creating a new folder, moving a folder and moving a data item from one folder to another folder.

66. A device according to claim 57, wherein the at least one data identification element, embedded in said command, comprises an identification and a path of said folder.



**EVIDENCE APPENDIX**

None.



Attorney Docket No. 944-001.070-2  
Serial No. 10/781,325

**RELATED PROCEEDINGS APPENDIX**

None.

